

**sdmay18-12: Pilot Biometrics - ECG waveform captures**  
**Week 2 Report**  
**September 8 - September 15**

**Team Members**

Zachary Glanz — *Drivers/Embedded*

Andrew Jones — *Algorithm Design*

David Kirpes — *Circuits*

Justin Bader — *PCB/Circuit/Embedded*

Kory Gray — *Operating System*

Ryan Gallus — *Communications Lead/Mechanical*

**Summary of Progress this Report**

This week, our ARM M7 board and ADC evaluation board both arrived from our client. Part of our team focused on getting the hardware up and running, while others continued research into ECG waveforms and detecting stress levels. We made significant progress with the M7 board, and were able to write, compile, and run a simple c++ program on it. We also met with our faculty adviser to show him the hardware, and we explored ways to create the sensor filter entirely in software.

**Pending Issues**

We are still waiting for the ECG sensors to arrive, which will be necessary to start much of the project. We are still working on getting a version of linux on the ARM M7 board, and are attempting to test the ADC using a waveform generator in place of the ECG sensors.

**Plans for Upcoming Reporting Period**

With the ARM M7 board up and running, we now want to get Ubuntu linux on the board. We also want to get the ADC working using a waveform generator. We also need to complete more research into ECG waveforms, and are considering contacting a cardiologist to get more information.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Zachary Glanz	Researched device drivers a bit.	2	7
Andrew Jones	Researched coding language we are going to use for the device.	2	7
David Kirpes	Got microcontroller hooked up and running basic program.	3	8
Justin Bader	Researched ECG waveforms.	2	7
Kory Gray	Researched ubuntu linux and how to install onto our processor.	2	7

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<b>Ryan Gallus</b>	<b>Received hardware from client, reserved space in the senior design room. Got microcontroller running and deployed simple c++ program.</b>	<b>4</b>	<b>9</b>